



PROTECTING SOIL RESOURCES

Have you ever walked through the woods and come upon a fenceline? As you look across the fence, you see cattle grazing under the trees taking shelter from the heat of a summer afternoon. As you watch the cows, you notice something else – the woods on each side of the fence look very different. On your side there is a lush, green understory – on the other is a mixture of bramble and briar. On your side the trees look healthy and vigorous – on the other the stems are damaged, the crowns look thin with numerous dead branches, and many of the trees show signs of disease and decay. What is the difference?

The compaction of soil and the corresponding inability of soils to absorb rainfall, increased runoff, the loss of topsoil and leaf litter, and the exposure of roots to mechanical damage caused by hoof, foot, tire or skis can all lead to a decline in the health of your woodland. Forest soils play an important role in the life of your woodland. Soil is the fundamental resource of the forest, and it is the key component in determining the quality of your woodland and its ability to support plant growth.

As soil productivity declines, it limits the types of tree species that will grow on a site as well as their growth. Compacted or highly-eroded soils are far less productive and may not be able to support the trees and shrubs that would normally thrive on your site.

What can you do to protect the productivity of your forest soils?

- Keep livestock out of your woodland.
- When building roads or trails, minimize their number, width and length. Locate trails to follow the natural contour of the land.
- Where possible, locate roads on well-drained soils and select trail locations that allow for drainage away from the road.
- Limit the slope of a trail to less than 10 percent and break the grade using drainage structures.
- Construct diversion ditches or berms, divert water away from roads and side ditches, and channel it into vegetation.
- Use mulch and/or seed where necessary to minimize soil erosion into streams, lakes and wetlands.

These are some simple things that you can do to protect the soil and health of your woodland. To learn more about protecting soil resources, we recommend reading **Wisconsin Forest Management Guidelines – Chapter 11, Forest Road Construction and Maintenance.**

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